

REMARKS/ARGUMENTS

This is meant to be a complete response to the Non-Final Office Action mailed on June 24, 2008. In the Office Action the Examiner rejected claims 1-10. The following is a disposition of the claims. Claims 1 and 10 are currently amended, claims 2-8 and have been previously presented, and claim 9 is cancelled.

New Matter

Applicant respectfully submits that the amendments made to claims 1 and 10 have support in the original disclosure, thus should not be considered new matter. More specifically, support for the limitation of the aggregate comprising about 80% by weight to about 100% by weight aggregate having a sieve size of less than about 4.75 mm can be found in Table 2. Table 2 shows gradation embodiments ranging from about 80% to about 100% of the aggregate implemented by the invention passing through a 4.75 mm sieve. Support for the limitation of the aggregate comprising about 40% by weight to about 70% by weight aggregate having a sieve size of less than about 1.18 mm can also be found in Table 2.

Claim Rejections - 35 USC § 112, First Paragraph

In the Office Action dated June 24, 2008, the Examiner rejected Claims 1-10 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Applicant respectfully submits that the above stated rejection of claims 1-10 under 35 U.S.C. 112, first paragraph, is moot in view of the amendments made to claims 1 and 10 and the cancellation of claim 9.

Claim Rejections - 35 USC §103

In the Office Action dated June 24, 2008, the Examiner rejected Claims 1-6, 9, and 10 under 35 U.S.C. 103(a) as being unpatentable over Maier (UK 1448158) in view of Cramwinckel (U.S. 3,822,556), further in view of Construction and Building Materials 16 (2002) 313-319; Jian-Shiuh Chen; Evaluation of internal resistance in hot mix asphalt concrete (available on-line 13 Aug. 2002).

Applicant respectfully submits that the above stated rejection of claims 1-6, 9 and 10 under 35 U.S.C. 103(a) is traversed. That is, it is respectfully submitted that the prior art references of Maier, Cramwinckel, and Chen whether viewed singularly or in combination, do not disclose, teach or even suggest the invention recited in claim 1.

Applicant's independent claim 1, as presently amended, is directed to an interlayer for placement on a paved surface, comprising a mixture of:

aggregate comprised of no more than about 15% by weight natural sand, wherein the aggregate is comprised of about 80% by weight to about 100% by weight aggregate having a sieve size of less than about 4.75 mm; and an asphalt binder, wherein said interlayer has a Hveem Stability at 60°C and 50 gyrations of at least about 22 and a Flexural Beam Fatigue of at least about 50,000 cycles at 2000 micorstrains, 10 Hz, $3.0 \pm 2.0\%$ air voids, at 0-30°C.

Maier teaches a material for making asphaltic concrete road surfaces. The material comprising crushed stone, sand, fillers, and a binder. The binder implemented in the Maier reference is defined as a hard bitumen. The hard bitumen defined in lines 83-90 of page 1 and limited to “an additive comprising 40 to 50% by wt. tar oils, 2 to 5% by wt. naphthalene, 2 to 5% by wt. anthracene, 1 to 2% by wt. phenols, 3 to 8 % by wt. polyamines, the remainder being pitch or tar.” The material for making asphaltic concrete road surfaces also includes a mineral mixture. The mineral mixture comprising:

- 35 parts by weight crushed gravel of an average particle size of 8-12 mm
- 15 parts by weight crushed gravel of an average particle size of 5-8 mm
- 15 parts by weight crushed gravel of an average particle size of 2-5 mm

- 12 parts by weight crushed sand
- 12 parts by weight natural sand
- 10 parts by weight limestone filler
- 1 part by weight asbestos

The Maier reference does not teach or describe an interlayer comprising a mixture of: aggregate comprised of no more than about 15% by weight natural sand, wherein ***the aggregate is comprised of about 80% by weight to about 100% by weight aggregate having a sieve size of less than about 4.75 mm***; and an asphalt binder, ***wherein said interlayer has a Hveem Stability at 60°C and 50 gyrations of at least about 22 and a Flexural Beam Fatigue of at least about 50,000 cycles at 2000 micorstrains, 10 Hz, 3.0 ± 2.0% air voids, at 0-30°C.***

It is respectfully submitted that the Cramwinckel reference does not supply the deficiencies of the teachings of the Maier reference. The Cramwinckel reference teaches an asphaltic composition comprising asphaltic bitumen and mineral matter, which is particularly suited for lining bottoms of water reservoirs and slopes.

The Cramwinckel reference does not teach or describe an interlayer comprising a mixture of: aggregate comprised of no more than about 15% by weight natural sand, wherein the aggregate is comprised of about 80% by weight to about 100% by weight aggregate having a sieve size of less than about 4.75 mm; and an asphalt binder, wherein said interlayer has a

Hveem Stability at 60°C and 50 gyrations of at least about 22 and a Flexural Beam Fatigue of at least about 50,000 cycles at 2000 micorstrains, 10 Hz, $3.0 \pm 2.0\%$ air voids, at 0-30°C.

Contrary to the Examiner's position, it is respectfully submitted that the Chen reference does not supply the deficiencies of the combination of the teachings of the Maier reference and the Cramwinckel reference. The Chen reference teaches a method for selecting aggregates to produce a high-quality paving mixture, a method for measuring internal resistance in hot-mix asphalt (HMA) mixtures, and to evaluate the effect of different gradations on the rutting of mixtures. The Chen reference further teaches that a HMA mix could be made more resistant to rutting by specifying an adequate range of the fine aggregate passing through a 4.75-mm sieve and that a stable aggregate skeleton resulted in more internal resistance. Conversely, less internal resistance results in a less stable aggregate skeleton. The Chen reference teaches, in Table 1, in section 2.1, and in other Figures, aggregate gradations where 15% up to 50% of the aggregate in the HMA mixtures passes through a 4.75-mm sieve. The Chen reference also teaches in the Conclusions section on page 318 that stone-on-stone contact in the coarse aggregate portion begins to occur at approximately 30% of the aggregate passing through the 4.75-mm sieve and the aggregate skeleton appears to start losing its internal resistance at approximately 45% of the aggregate passing through the 4.75-mm sieve.

For the reasons set forth above, it is respectfully submitted that the Maier reference does not disclose the elements of claim 1; and the Cramwinckel reference and the Chen reference do not supply the deficiencies of the Maier reference. None of the references, either singularly or in combination discloses, teaches, or even suggests the interlayer recited in Applicant's claim 1, as amended.

In view of the above, it is respectfully requested that the Examiner withdraw the rejection of claim 1, and thus claims 2-6 and 10 for depending therefrom, under 35 U.S.C. 103(a), as applicable to claims now pending in the application.

Claim Rejections - 35 USC §103

In the Office Action dated June 24, 2008, the Examiner rejected Claims 7-8 under 35 U.S.C 103(a) as being unpatentable over Maier in view of Cramwinckel (U.S. 3,822,556) and Construction and Building Materials 16 (2002) 313-319; Jian-Shiuh Chen; Evaluation of internal resistance in hot mix asphalt concrete (available on-line 13 Aug. 2002) as applied to claim 1, and further in view of Malloy et al (U.S. 6,669,773).

Applicant respectfully submits that the above stated rejection of claims 7-8 under 35 U.S.C. 103(a) is traversed. That is, it is respectfully submitted that the prior art references of Maier, Cramwinckel, Chen, and

Malloy et al., whether viewed singularly or in combination, do not disclose, teach or even suggest the invention recited in claim 1.

For the reasons set forth above, it is respectfully submitted that the Maier reference, the Cramwinckel reference, and the Chen reference do not disclose the elements of claim 1, as presently claimed. Further, applicant submits that the Malloy et al. reference does not supply the deficiencies of combination of the Maier reference, the Cramwinckel reference, and the Chen reference. The Malloy et al. reference is directed toward a synthetic lightweight aggregate composition comprising fly ash and a mixture of two or more polymer components.

Thus, it is readily apparent that Applicant's inventive concept as recited in Applicant's independent claim 1, and thus, claims 7-8 which depend therefrom, is not taught or even suggested by the combination of the Maier reference, the Cramwinckel reference, the Chen reference, and the Malloy et al. reference.

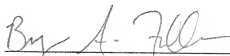
In light of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 7-8 under 35 U.S.C. 103(a).

CONCLUSION

It is respectfully submitted that this application, as now amended, is in condition for allowance for the reasons stated above. Therefore, it is requested that the Examiner reconsider each and every rejection as applicable to the claims pending in the application and pass such claims to an expedient issue.

The foregoing is meant to be a complete response to the Non-Final Office Action mailed June 24, 2008.

In the event that any outstanding issues remain that would delay the allowance of this application, the examiner is urged to contact the undersigned to telephonically discuss such outstanding issues.



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